

DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
Branch of the Live Stock Commissioner

THE CATTLE TRADE OF WESTERN CANADA

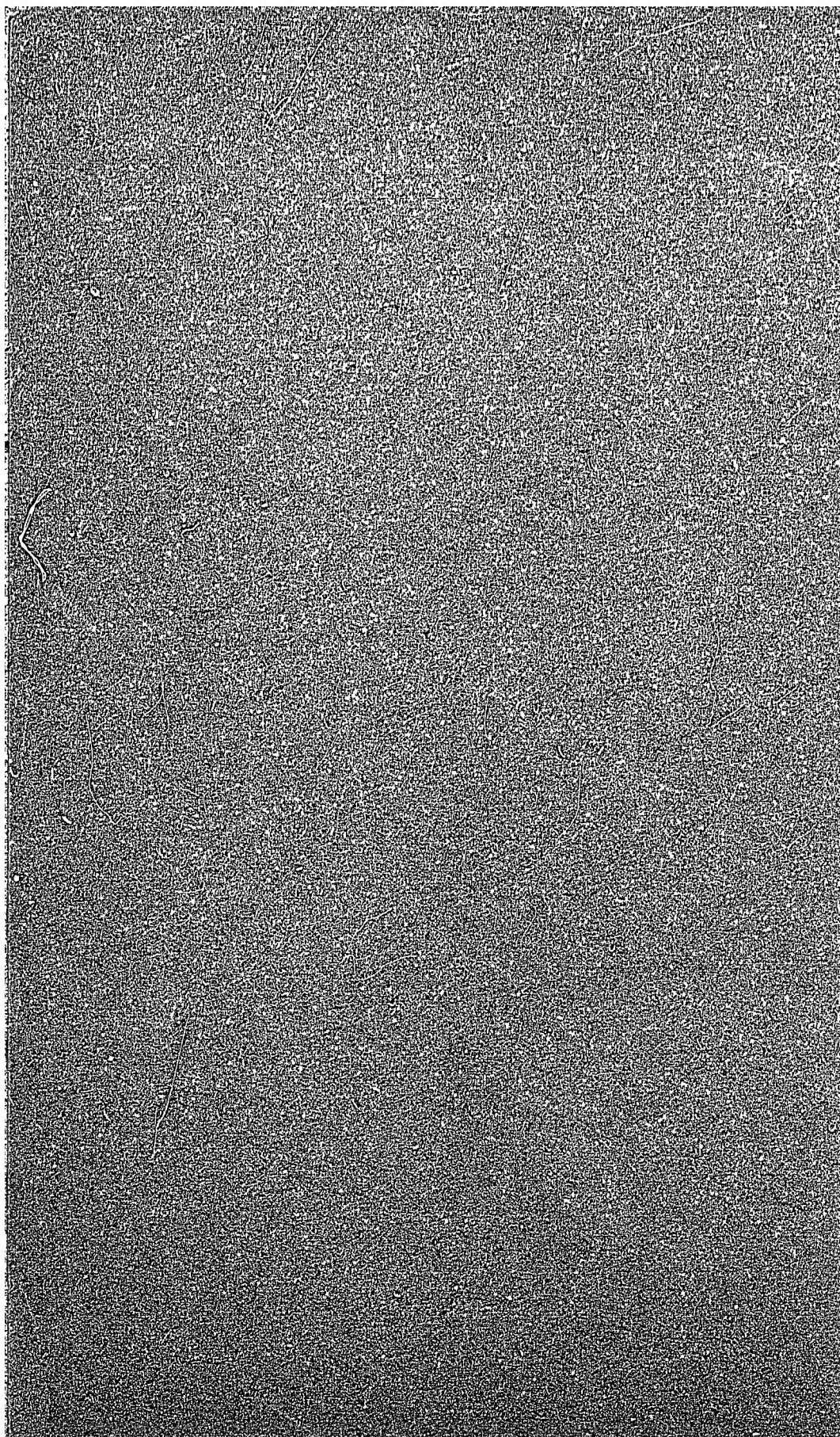
SPECIAL REPORT

BY

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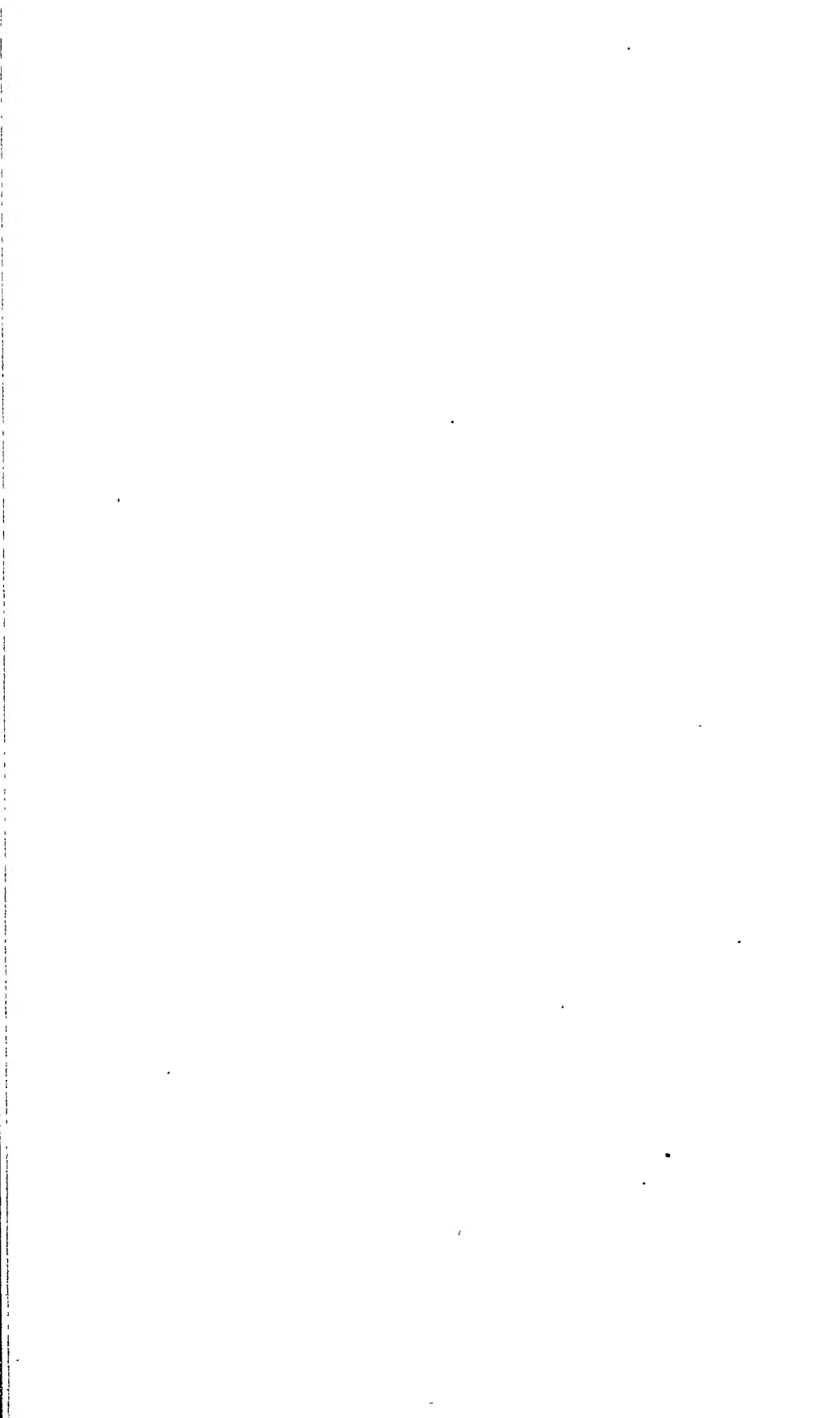
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THE CATTLE TRADE OF WESTERN CANADA

OTTAWA, August 1, 1909.

SIR,—Ever since July, 1906, when you added to my other duties those pertaining to the office of Live Stock Commissioner, I have been quietly investigating the conditions surrounding the commercial live stock trade of Canada. To this subject comparatively little attention had previously been given, my predecessor having devoted more time and effort to the interests of the breeders of pure bred stock than to those of the ordinary farmer and feeder.

This was doubtless both proper and necessary, the pure bred herd or flock being the fountain head of all profitable stock keeping, and therefore of prime importance to the whole industry.

It is nevertheless a fact that in Canada, as elsewhere, the breeders of pure bred stock are more independent and less needful of government assistance than any other class in the farming community, excepting perhaps the original settlers on the western prairie, who, certain of a rich return, and reckless of the future, too often exploit the virgin soil with a fine disregard of all the principles of husbandry.

The breeder is independent of government aid for two reasons: firstly, because he is a breeder and therefore, as a rule, a man of more enterprise, and wider knowledge of business methods than the majority of his fellow tillers of the soil, and, secondly, because, being united with others equally intelligent, in one or more thoroughly organized and active breed associations, he is in a position to reach a definite decision as to what his rights and requirements are, and to apply to those in authority the pressure or persuasion necessary to obtain them.

On the other hand, the breeder or feeder of ordinary live stock pays but little attention to the commercial aspect of his business, and being, as a rule, without organization, is at the mercy, to a large extent, of the dealer, to whom he is practically forced to sell and who is generally more than a match for him in experience and acumen, and besides, often in a position to dictate his own terms as to price and delivery.

In view of these facts, I deemed it my duty to endeavour to ascertain and present to you a summary of the facts as to the conditions under which our commercial live stock trade is being carried on, so as to enable you to take such steps as might appear to be necessary or advisable in the interests of the producers. The present report is confined almost entirely to the cattle trade of the western provinces, as, of all branches of the business, this appears to me to be subject to the most numerous and serious disabilities and disadvantages.

You will recollect that in 1902, at your special request, I prepared a brief statement regarding this trade, dealing specially with transportation, which was published in your annual report for that year. Since that time conditions have been somewhat bettered, but there is yet much room for improvement, particularly in the matters of transportation and marketing.

During the seasons of 1907 and 1908 special officers were employed to investigate all phases of the western cattle industry, beginning with the animal on the ranche and ending with his marketing either on this continent or in Europe.

The reports of these officers, which deal very fully with the details of the trade and especially with its transportation features, contain much valuable information, and will, I trust, be of great value in enabling the department to undertake intelli-

gently, either by special legislation or otherwise, the improvement of existing conditions.

As is well known the Canadian west is now experiencing the same change in cattle raising methods as has already taken place in much of the country south of the line, formerly devoted to ranching purposes.

The incoming of settlers, many of them from the dry belt, has transformed large areas of land, formerly considered only fit for ranching, into fertile farms growing great crops of grain and fodder. While there is yet much territory untouched by the settler and on which the cattle still range as formerly, its area is being yearly curtailed, and, as a natural consequence, the free, easy and somewhat wasteful methods of the rancher are gradually giving place to those of the farmer and feeder. That this change will, instead of lessening the output, eventually result in a large increase in the cattle production of the transformed districts, needs no demonstration. Under ranching conditions, twenty acres is the usual allowance for each head of cattle, while the losses from exposure, from lack of food and from wild animals constitute a heavy drain on the herd.

The farming settler raises an abundance of feed of all kinds which he cannot use to better advantage than in fattening cattle. With the aid of his fences and with cheap buildings, or even with none, he can keep his cattle under constant observation and control, with the result that loss is reduced to a minimum. At the same time the cattle, being at least partly domesticated, and generally to some extent grain fed, handle and ship infinitely better than do the grass finished range steers which often, on the long journey from their native prairie to Liverpool or London, shrink the profit from their bones, and go to the butcher in such a condition as to fairly justify the Scottish feeder in his persistent opinion that Canadian cattle can only be fattened in his sheds and courts.

Again, the winter feeding of steers will abolish the heavy handicap which the rancher, pure and simple, has always had to carry in being compelled to market his cattle off the grass and before the advent of winter. Under the new order of things, demand will, to a much greater extent, regulate supply, and the element of compulsion being removed, prices will be more even, while much of the present difficulty in transportation, due to the seaward rush of cattle and other produce in the fall, will also disappear.

The close farmers are, as yet, however, in the minority in the less thickly settled portions of Alberta and Saskatchewan. There is still much open grazing land available and many settlers let their cattle run at large during the summer, thus, for the present as it were, combining ranching with farming. As time goes on and the land becomes more generally taken up, this condition will disappear, as it has already done in many districts in Manitoba, as well as in the newer west, and the farmer will have to depend for his feed on the output of his own acres.

HISTORY OF THE CANADIAN RANGE.

The ranching industry in Canada is rapidly passing. In Saskatchewan and Alberta the handwriting is already on the wall, and in these provinces it is only a matter of time until even the districts still regarded as unfit for general agriculture will, through modern methods of dry farming or by means of irrigation, be brought under cultivation. In the Peace River country ranching may persist for a time, but there, as elsewhere on the continent, the settler will soon be its undoing and the cowboy will disappear. This being the case, a brief history of the industry during the thirty years since its inception, may be found interesting.

In 1879, after the disappearance of the buffalo, which had up till that time, furnished the Indians of the plains with their principal sustenance, the Canadian Government brought in from Montana a thousand head of breeding cattle for the purpose of creating a future source of meat supply for these aboriginal wards of the nation.

This herd, the introduction of which was largely in the nature of an experiment, was placed in the foothill country west and southwest of Fort Macleod, and

though badly handled and depleted by cattle thieves and wild animals, soon proved, beyond a doubt, that the profitable raising of cattle in the Canadian west was a feasible proposition.

The establishment of a number of extensive ranches quickly followed. Arrangements were made for the leasing at low rates of large areas of government land. Capitalists became interested, and money from Europe, from eastern Canada, and from the United States flowed into the country. From lack of experience of climatic and other local conditions some of this money was lost, but, with the advent of the railway in 1883, conditions improved and a large and profitable industry was speedily built up.

In the beginning, fences were unknown, the cattle being controlled by herders, but about 1885 the proprietary instinct began to assert itself and many of the larger holdings were put under fence, although, needless to say, the smaller owners continued to prefer the open range system.

The big concerns used almost exclusively pure bred bulls of the beef breeds, and, as the grazing was good and not over-stocked, usually held their steers until at least four years old, the result being that a most excellent type of beef animal, full grown, and well finished, began to find its way from Alberta to the eastern market. Being mature and well furnished with fat in the fall, driven slowly, feeding and hardening on the way through a rich grazing country to the railway, distant often many days' journey from the home ranch, these cattle stood the trials of the export journey fairly well, and landed in Britain, somewhat shrunken it is true, but still yielding a reasonable profit on the comparatively small cost of production. In the early days of the industry, only the best were exported. The lighter and rougher stock went for local consumption and to fill railway construction and Indian contracts.

DETERIORATION.

As time went on, the country became more heavily stocked, many men without adequate capital or experience began to keep cattle, cross-bred bulls became commoner on the range, carelessness in breeding methods, lowered the natural increase, the purchase of stockers first from Manitoba and later from the eastern provinces introduced many very inferior animals, and a general deterioration both in quality and value became only too evident.

The climax of this deterioration was reached about the year 1902 when, tempted by the low prices of Mexican cattle, some of the larger ranchers began to make importations from Chihuahua and Coahuila. These degenerate descendants of the ancient Spanish breed, although hardy and exceeding in length of horn, as in length of wind and in speed, anything ever before seen among our western cattle, did not recommend themselves to the intelligence of the Canadian rancher, and, after a few years of trial, the trade practically died out in 1905.

SALES OF PURE BRED MALES.

About the same time the effects of the policy of this department in establishing annual provincial auction sales of pure bred bulls began to make themselves apparent.

These sales, although to some extent hampered by the jealousies of local breeders, as well as by the indifference of many of the less intelligent and less progressive ranchers, have done an excellent work in raising the standard of our western cattle, as regards size and conformation.

There is still much room for improvement in this direction, and it is to be hoped that as diversified husbandry takes the place of ranching, the necessity for using a better class of bulls than those hitherto employed will be more generally recognized and appreciated.

EFFECTS OF SETTLEMENT.

The advent of the Mormons and others familiar with dry farming and the experience of a few of the more progressive ranchers themselves, especially in the

Pincher Creek district, having demonstrated the suitability of much of the country for general farming, a strong tide of immigration set in about the year 1900, and since that time, many of the old ranches have been divided, cultivated and built upon, and now form populous rural areas, rapidly beginning to resemble in appearance similar districts in the older settled provinces.

At the present date, while many of the larger ranches have closed out, the cattle industry is by no means at an end. It is true that many cattlemen, seeing the inevitable end of ranching, have been rapidly 'beefing' out their herds by selling cows, spaying heifers and disposing of bulls, but this is only a link in the chain connecting the old with the new and better condition of the industry. The determination to beef out has temporarily increased the output of cattle of range quality, but, while this is going on, the incoming settlers are stocking up, not to return to the old system of selling their cattle off the grass in the fall, but to follow the more profitable method of finishing beef throughout the year for the good markets, as is done in other progressive countries, where beef raising is recognized as a legitimate and useful adjunct to mixed farming.

The condition of the range industry was described in striking terms by a representative western cattleman, at the National Live Stock Convention, in February, 1908, who said:—'No one at all familiar with the ranching industry will hesitate to state that it is in a condition of rapid decline, dying as decently and as quickly as it is financially able to do.' It is not yet dead, however; there were still in force in the four western provinces, on April 1, 1908, 939 grazing leases, involving 3,259,271 acres divided as follows:—Manitoba, 12,642 acres; Saskatchewan, 632,493 acres; Alberta, 2,132,718 acres; British Columbia, 281,418 acres. The average area under lease is 3,481 acres. It would therefore appear that there are still a good many cattle kept under the old conditions, even when the sheep and horse leases are taken into consideration.

WINTER LOSSES.

From its very inception the ranching industry was subject to winter losses, more or less severe according to the nature of the weather, as well as that of the rancher himself. Even in the worst winters those herds whose owners had made reasonable provision for bad weather conditions escaped, as a rule, with comparatively little loss, although they also occasionally suffered heavily through sudden storms, which, coming early in the season, drifted the cattle so far away from the stores of fodder prepared for them that it was impossible to get them back before the advent of spring, or until a timely chinook enabled the cowmen to collect from far and near the remnants of the herd.

The winter of 1886-7 was almost fatal to the industry, being unequalled in severity by any season, either before or after, until the memorable year of 1906-7 when approximately fifty per cent of the cattle on the range were lost.

In the year first mentioned, however, there was much more grass and many fewer cattle, while on the ranges then occupied there was considerable natural shelter, so that, although badly hit and sorely discouraged, the ranchers did not abandon the field, but investing new capital and energy, soon regained the ground they had lost.

As stated above, the rancher who makes adequate provision for a bad winter, may, through unforeseen circumstances, lose heavily in spite of his foresight; on the other hand the careless and improvident owner, who trusts to luck and stores no hay for winter use, is certain to be seriously hit, should the season prove exceptionally rigorous.

Apart from the mere question of money, the practice followed by too many owners of facing the possibilities of the winter without laying in at least enough fodder to sustain life, is cruel and reprehensible to a degree, and should, I think, be made the subject of drastic legislation.

It would be possible to go much more deeply into the question and, in fact, to practically show by a consideration of its various demerits, that while in its own time

and place it served a useful purpose, the ranching industry has properly had its day, and that its early disappearance from southern Alberta and Saskatchewan need, except perhaps from the standpoint of sentiment, cause no deep or lasting regret.

THE TRADE AS NOW CONDUCTED.

The export trade in western range cattle, as hitherto carried on, has been sinfully wasteful, unbusinesslike and unprofitable to the producer. Cattle wild, excitable and soft off grass, are driven to the railway, held sometimes for days on poor pasture waiting for cars, and finally, after more or less unavoidably rough handling, are forced on board. Once in the cars, they are, not unfrequently, run through to Winnipeg without being unloaded for feed or water. It is 840 miles from Calgary to Winnipeg, and as many shipments originate beyond the first-named point, it may be readily seen what this means, even when the run is a good one. Some shippers unload at Moosejaw, 440 miles west of Winnipeg, but others claim that it is alike more humane and more profitable to run through, as the cattle, being still wild, excited and unaccustomed to handling, not only refuse both feed and water, but suffer much more in the unloading and reloading than they do when left in the cars. On arrival at Winnipeg they are always unloaded, fed and watered, being, by this time hungry, thirsty, and fairly quiet from exhaustion. After being rested they are inspected, culled and reloaded, the next step being, as a rule, at White River, 673 miles further east. There they are again fed and watered and after another stage of 755 miles, arrive at Montreal. Here for most of them the land journey ends, although when navigation is closed at that point, it extends to Portland, Boston or St. John, New Brunswick, as the case may be; very rarely to Halifax. At Montreal, however, all are unloaded, fed, watered, rested, and carefully inspected by the veterinary officers of this department, whether they are to be shipped by water from there or from some other port. If the latter, they are on arrival, rested and again inspected before going on board the steamer.

While the facilities for loading cattle on the ship at St. John are excellent, those at Montreal are not of the best, and this necessitates more and somewhat rougher handling than would otherwise be the case. Even on the ships there is much room for improvement in conditions. The regulations as regards space, fittings and similar matters, are, oddly enough, drawn up and enforced by the Department of Marine and Fisheries, and although these might, in my opinion, be revised with advantage, this is scarcely the proper place to discuss them.

One matter, however, I must mention, namely the class of men employed to look after and care for cattle on our Canadian ships. These are, as a rule, picked up indiscriminately, through agents at the port of shipment. These men, known in the trade as 'stiffs,' are often returning emigrants, who have failed, through drink or other causes, in making things go in Canada, or sometimes simply men looking for a cheap passage, decent enough perhaps, but with no knowledge of cattle, and in many cases quite unaccustomed to the sea. Such men are frequently incapacitated for duty through seasickness, and, in other cases, simply refuse to work, with the result that any who may be capable and industrious are overwrought and the cattle suffer accordingly. In rough weather especially, the feeding and watering are apt to be irregular and insufficient.

Is it a matter for wonder that after a journey of 5,000 miles, made under such conditions, our grass-fed range steers arrive in British lairages gaunt and shrunken, looking more like stockers than beeves, that our Scottish friends think we have no feed, or that I should declare a business so conducted as sinfully wasteful?

And still it is profitable; profitable to the middleman who, coolly reckoning on the shrinkage, fixes accordingly his price to the producer; profitable to the commission man who pockets in commission what the middleman takes in profits; profitable to the railway companies; profitable to the steamship lines and profitable to the

British butcher who pays only for what he gets and not even that much if, by combination or sharp practice of other kinds, he can manage to keep prices down. To the producer however, and therefore to the country, it is the very reverse, and the odd feature of it all is that if conditions were so amended as to make it profitable for them, the others mentioned above would gain, rather than lose, by the change.

AS IT SHOULD BE.

No wild, grass-finished cattle should be shipped for export. In a country like western Canada which, one year with another, is full of all kinds of material for winter-feeding, there is no excuse for the sending forward, for immediate export, animals which, owing to their lack of domestication and the nature of their food, cannot, under ordinary circumstances, reach their destination on the British market without a woeful depreciation in both quantity and quality of flesh.

Our friends in the United States long ago realized the folly of shipping to Europe alive, steers direct from the range. Their range cattle are brought to the middle west, dehorned, if this has not been earlier done, fed for at least sixty days on a ration comprising a liberal allowance of grain, then sent to market, generally in Chicago, and carefully inspected and culled. Those deemed fit for export are then taken to the seaboard by fast trains and in cars specially fitted for feeding and watering en route. They are loaded on these cars under careful supervision, no overcrowding or rough handling being permitted. The men in charge are almost invariably regular salaried employees of the shipping firms, and the same is true of the foremen on the ships and of those working under them.

As a result of these superior methods, United States cattle, even when originally from the western ranges, arrive in Britain in much better condition than Canadian range cattle, and of course command correspondingly higher prices.

Domesticated Canadians, properly finished, land, as a rule, in excellent condition, and compete closely in price with the best States cattle of the same class. There is no reason why our Canadian range cattle, if treated on similar lines, should not compete as closely with steers from the Western States.

Finishing Range Cattle.

As a matter of fact, considerable improvement is already taking place in the finishing of western cattle, as year by year more winter feeding is undertaken. Many thousands of good steers are, in the autumn, put on a hay or grain ration for the winter. When the feeding is liberal and judicious and good water available, the grass flesh is not only held, but gains on hay alone, of from 80 to 125 pounds, and from hay and grain up to 400 pounds, are not uncommon. The cattle thus wintered are ready for the spring market, on which they usually sell well, prices always being better at that season, the demand good, and, as but few cattle are being handled, shipping facilities much better. Winter feeding is now systematically carried on by some of the largest operators in the west.

Arrangements are yearly made by one firm with individual farmers throughout the country to feed during the winter at a fixed price per head per month. The cattle are handed over to these men on the approach of hard weather and taken from them when wanted. While many are slaughtered for home and coast consumption, a large number may now be seen during May and June at the Winnipeg yards on their way to the British market, where, needless to say, they get a much more favourable reception than do those which come direct from the range.

A carefully prepared estimate of the number of cattle on feed in central Alberta during the winter of 1908-9, gives 6,000 head being fed in small lots by individual farmers, and 2,000 head by large concerns. It is believed that 75 per cent of these were receiving a grain ration, and 25 per cent hay alone. In the southern part of the province, additional large numbers, of which reliable statistics are not available, were also fattened.

The growth of the practice of finishing cattle on dry feed (hay or hay and grain) in the three western provinces, is indicated by statistics of shipments received at Winnipeg from January to June (fed on dry feed), as compared with the shipments from July to December (grass fed) for the years 1906, 1907 and 1908, as follows:—

Number of cattle shipped east from Winnipeg, January to June, 1906.. . .	9,435
Number of cattle shipped east from Winnipeg, July to December, 1906.. . .	81,609
Number of cattle received for local use, January to June, 1906..	9,135
Number of cattle received for local use, July to December, 1906..	31,462
	<hr/> 131,641

Number of cattle shipped east from Winnipeg, January to June, 1907.. . .	1,487
Number of cattle shipped east from Winnipeg, July to December, 1907.. . .	50,062
Number of cattle received for local use, January to June, 1907..	16,397
Number of cattle received for local use, July to December, 1907..	32,254
	<hr/> 100,200

Number of cattle shipped east from Winnipeg, January to June, 1908.. . .	19,531
Number of cattle shipped east from Winnipeg, July to December, 1908.. . .	86,593
Number of cattle received for local use, January to June, 1908..	22,342
Number of cattle received for local use, July to December, 1908..	41,622
	<hr/> 170,088

The above tables show the percentage of dry fed cattle arriving at Winnipeg for the past three years to have been as follows:—

1906..	16·37 per cent.
1907..	21·62 “
1908..	48·67 “

The shipments via Winnipeg in no sense include all the cattle produced in the three prairie provinces. To these must be added the large quantity of beef consumed in the local markets, in addition to that shipped to British Columbia and the Yukon. It appears safe to infer that the percentage of winter fed cattle that have gone to Winnipeg, as shown by the above tables, indicates fairly accurately the relative proportion of these to grass-fattened stock produced in the three provinces. These tables further indicate that within a few years comparatively few lean, or rather half-fed, cattle will be shipped from western Canada for immediate killing.

This is an excellent showing, as far as it goes, but I am satisfied that, one year with another, a profitable business can be done by farmers in the grain growing districts of the three western provinces, in finishing for the market, the big growthy grass-fed steers from the range country. In seasons when rough grains are scarce or dear, it would not, of course, be so profitable as when these were cheap and plentiful. There is almost always roughage in abundance. In many districts good prairie hay is procurable at small cost, while straw is always available and can, as Mr. Bedford and many others have shown, be fed with profit, when intelligence and some other things are in the combination. Once in a while too there is a little frozen wheat in the country, and in years when this is the case, the best market for it is usually to be found among the live stock, if one is fortunate enough to have them.

With the object of encouraging the proper finishing of range cattle in the west, this branch has for two seasons offered to a number of selected farmers in Manitoba and Saskatchewan, who have suitable locations and would undertake the finishing of range steers in winter on their farms, a bonus of two cents per pound of gain on such cattle fed by them. It is not desired that the cattle be housed, but fed either in open sheds or naturally sheltered locations.

Sufficient evidence is at hand to demonstrate that profitable finishing can be done without the use of expensive buildings and upon such feed as is now being

wasted on many wheat farms. The bonus offered was not in any case accepted, farmers, intending to feed, preferring to utilize the semi-domesticated cattle available in most districts, rather than undertake the feeding of range steers to which they were unaccustomed.

FEEDING AT BRANDON.

Outdoor feeding was, however, undertaken at the Experimental Farm at Brandon, where in the tests made in 1907-8, it was found that the cattle fed outside made more profitable gains than similar cattle fed under the usual stabling conditions. The experiment is being continued on a larger scale this winter. Following is Superintendent Murray's report of the 1907-8 experiment:—

Feeding Steers on Brandon Experimental Farm—Outside versus Inside.

(By James Murray, Superintendent.)

The feeding of cattle out of doors for the production of beef has been receiving considerable attention of late at the hands of Manitoba cattlemen. The strongest advocates of this method of producing beef are men who have been successfully practising it for a number of years and those who have seen it in operation. The conditions of outdoor feeding are so radically different from those that have been generally considered essential that the majority of cattlemen are sceptical about it, while many others look upon the practice as ludicrous, and aver that it must involve a wanton waste of feed.

Last fall some work was started to secure definite information as to the comparative economy of making beef in a comfortable stable and in the open with comparatively little shelter. The first lot of steers, thirteen head, has just been marketed and the results are available.

Thirteen were purchased in late November and divided into two groups as nearly alike as possible in size and quality, eight being dehorned and put outside and five (as many as we had accommodation for) tied in the stable. The steers were domestic, purchased in the neighbourhood of Oak river and cost $3\frac{1}{2}$ cents shrunk. The inside group were started on September 3 on a standard ration that has given good results here for a number of years for beef production and consisted of silage, straw, hay, a few roots and grain. The grain ration at the start consisted of two pounds of a mixture of oats, barley and feed wheat, and two pounds of bran per steer. This was increased from time to time until by the first of April each steer was receiving daily 10 lbs. of grain and 2 lbs. of bran. The steers were not out of the stable after being tied up until they were sold.

The eight steers outside had a range of about 100 acres of rough rolling land some of which was well sheltered with scrub. Water was available in one of the coulees, the ice being cut every day. No shelter by way of sheds was provided. Grain was fed in a trough about three feet wide and high enough off the ground to prevent the steers getting in it. Straw was always kept before them in an inclosure of stakes that would hold about a load, arranged so that the straw could not be wasted by tramping over it. On December 3 they were started on a ration consisting of 2 pounds of mixed grain and 2 pounds of bran, this being increased from time to time, so that by April 1 each steer was getting 9 pounds of grain and 2 pounds of bran. For about six weeks rough hay was fed instead of straw. This is charged for at the rate of \$2 per ton, which is its full value.

Both lots of steers were sold on April 22 for \$4.25 per hundred with $\frac{1}{4}$ per cent shrinkage. Following is a statement of the transaction:—

	Outside.	Inside.
Number of steers in lot.	8	5
First weight gross.	8,854 lbs.	5,695 lbs.
First weight average.	1,106 "	1,139 "
Finished weight, gross.	10,630 "	6,950 "
Finished weight, average.	1,328 "	1,390 "
Total gain in 138 days.	1,776 "	1,255 "

	Outside.	Inside.
Average gain per steer	235 lbs.	251 lbs.
Daily gain per steer.. . . .	1·6 "	1·81 "
Daily gain per lot.. . . .	12·8 "	9·05 "
Gross cost of feed.. . . .	\$100 76	\$77 95
Cost of 100 lbs. gain.. . . .	5 67	6 20
Cost of steers fed out of doors, 8,848 lbs. at 3½ cents.. . . .	276 50	.....
Cost of steers fed indoor, 5,695 lbs. at 3½ cents.. . . .	.....	177 97
Total cost to produce beef.. . . .	377 26	255 92
Out of door steers sold, 14,135 lbs. at 4½ cents, less 4 per cent.. . . .	433 71	.....
Indoor steers sold, 6,950 lbs. at 4½, less 4 per cent.. . . .	.....	283 56
Profit on lot.. . . .	56 45	27 64
Net profit per steer.. . . .	7 05	5 52
Average buying price per steer....	34 56	35 59
Average selling price per steer.. . . .	54 21	56 71
Average increase in value.. . . .	19 65	21 12
Average cost of feed per steer.. . . .	12 59	15 59
Amount of meal eaten by lot of steers..	8,892 lbs.	5,390 lbs.
Amount of straw.. . . .	8 tons.	5,680 "
Amount of hay.. . . .	6 "	2,840 "
Amount of millet.. . . .	1 "	.....
Amount of ensilage and roots.. . . .	.....	25,850 "
Amount of corn fodder.. . . .	1 ton.	.....

INVESTMENT AND LABOUR.

The net profit as shown here, \$5.52 on those fed inside and \$7.05 on those fed outside, makes no allowance for interest on investment or labour involved in tending the cattle. For the outside lot the only investment was the price of the steers and the value of lumber for troughing, a total of \$286. The labour incident to attending this lot, including the drawing of straw, feeding grain and cutting ice would at the outside not amount to more than the time of one man for one hour per day. The extra expense in attending 50 head would have been not more than the time required to draw the additional straw—a small item.

In feeding inside the investment is necessarily very much greater, no matter how economically the building be done. Provided a building suitable for stabling 30 steers could be erected for \$1,000, an additional gross profit of \$2 per head would be required to meet interest on the investment. The labour required to attend to the cattle fed inside was fully four times as much as that required when the feeding was done outside.

The point has been raised in discussions on this subject that a large part of the food consumed by the cattle fed outside must be utilized to keep up the animal heat, and since those fed in a comfortable stable do not have the same waste of heat to provide for in the food consumed, they should on that account lay on fat more economically. It must be borne in mind, however, that cattle that are not stabled grow a coat of hair more resembling in its density that of a beaver than that of a steer, and that this provision aids greatly in conserving the animal heat. During the coldest weather that we had this winter, when for a week the temperature averaged 29 below zero, the steers did not seem to suffer the least, and were not standing around the straw pile with humped backs as one might imagine.

The cattle were always ready for their feed and none of them went off during the winter. The abundance of fresh air has no doubt a salutary effect in keeping the digestive system in tone.

The work carried on this winter is intended as introductory to more extensive trials. Experiments of the sort above outlined must be continued for a number of years, when different kinds of seasons are encountered, before the results can be considered of any great value. The past winter's results may be taken as representing what may be expected in an unusually mild winter free from severe storms or prolonged cold spells. How these results will compare with what may be obtained in a more severe winter remains still to be seen.

Outdoor Feeding by a Private Owner.

The results achieved at the Brandon Experimental Farm in the one season tried have been verified over and over again, year after year on Manitoba farms. The following description of a number of years' feeding near Newdale prepared by Mr. Grayson, Mount Pleasant stock farm, of that place, and published in the *Nor'West Farmer*, shows the method to be a profitable one even in severe seasons:—

Some fifteen years ago Mr. John B. Cook, of Newdale, in connection with the late Dr. Harrison, built a large barn and started somewhat extensively into the business of winter feeding of beef cattle. After about three years' experience during which time the balance was always on the wrong side of the ledger, another bunch of cattle was bought and fed hay in the shelter of the scrub which extends along the north side of the farm, the intention being to bring the cattle to the barn as the weather got colder. The cattle had access to open water in the ravines and appeared to be doing so well that they were left out all winter. A small allowance of grain was added to the hay about March 1. These cattle were sold early in the summer and were the first cattle to net their feeders a profit. Since that time Mr. Cook has continued to feed from sixty to one hundred head of steers each winter, and the writer, as well as others, has done something along the same line with satisfactory results.

'In this article I propose to give some idea of the work carried on here. In doing so I know I shall say things that are at variance with what most of us believe to be essential to the production of beef, but I would ask readers to remember that what I am writing is actual experience and not theory. Years ago Mr. Cook's plan was to buy in the fall a bunch of cattle, big, lean steers and thin cows and heifers, almost anything with a large frame that might be made to carry meat. But to-day nothing is selected but steers of good beef conformation and weighing from 1,100 to 1,300 pounds in the fall, steers that carry a considerable amount of flesh. Experience has proved that the fleshy steer is the most profitable to winter and makes better gains than the leaner one in the bunch, and we rarely find a steer so fat from the grass that he will not stand a finishing spell with grain. These steers have usually been bought from some regular cattle buyer, a premium being paid for the privilege of selecting suitable feeders.

'The steers are usually bought during October and allowed to run on the farms until winter sets in in earnest. As early as convenient after the steers are bought they are dehorned. Clippers are used for this purpose and a handful of lime is pressed on each stub to assist in checking the bleeding. With the approach of winter the steers seek the shelter and straw is drawn to them.

CRITICISMS ANSWERED.

'I have noticed from questions that have been asked me and from criticisms that the generally held idea regarding shelter is, that the cattle retire into the bottom of some thickly wooded ravine or into some heavy bush where they would be almost as much shut in as they might be in some sod building without windows. Instead of this the cattle prefer the high open spaces, with just enough scrub to prevent the snow from drifting over the straw. The cattle enjoy the life and especially enjoy the sunshine so long as the winds are broken from them.

'Here I may speak of another point and that is the manure. One of my critics of a previous article seemed to think that it would be out of the question to gather the manure from among the scrub. Now if straw is fed in a comparatively limited

open space, until it reaches a depth of two or three feet of straw and manure, I fail to see the difficulty of getting it gathered up. And I contend that I know of no better way to convert large quantities of straw into useful manure than by feeding it liberally out of doors to grain fed cattle. In feeding straw it is necessary to use much more than the cattle will eat up clean, as by this means the cattle can always have a comfortable bed, and we aim to have them comfortable.

'About the first of December, or earlier, if the weather is severe, the cattle are given about four pounds of grain each day. The grain is all fed in the evenings in troughs about three feet wide, eight inches deep and raised about two and a half feet from the ground. The grain ration consists of a mixture of oats and barley chopped (barley principally) and bran, about one-third bran by weight. Finely ground chop gives best results and is most appreciated by the cattle. It is our plan to feed about sixteen hundred pounds of grain per steer during the feeding period, and the ration is increased in January to about eight pounds per steer per day and about April to ten pounds. This is continued until about June 20, when the steers are sold. If the grass becomes good in June less grain is needed at the finish.

'In feeding cattle on such a dry ration, watering is of considerable importance. Those who are so situated that cattle can have access to open water at all times are especially favoured for this work; the cattle need to drink frequently and in small quantities. Where water is not so easily available it must be kept in the trough as much as the severity of the weather will permit, as a large drink of cold water following long abstinence would chill any animal and cause temporary check to digestive processes. In regard to salt, we usually place a barrel in some convenient place and knock the head in.

'In carrying cattle until June, it is a great help if one has hay enough to feed for about a month after the snow goes, and by confining the cattle, so that they will not ramble too far, they can be made to at least hold their own during this trying period. The object in carrying cattle until June has been to wait for a profitable market. If the market on, say the first of April, was anything like equal to the market of June, I am sure that good results would follow the feeding of the same total quantity of grain in the shorter period.

'Now as to our business methods.—The steers are bought when cattle are at about the lowest, a premium over the market being paid for the privilege of selecting steers of approved type. In working out our balance sheet we have been in the habit of charging the grain fed to the cattle at the rate of 80 cents per 100 pounds. This we consider a fair price in an ordinary year. We charge interest, wages, and all necessary expenses and have been able with a margin of $1\frac{1}{2}$ cents per pound between buying and selling price to have a balance on the right side of about an average of seven dollars per head.'

Experiences of Others.

The question of outdoor winter fattening was discussed at considerable length at the National Live Stock convention. The view held by many western grain growers, that winter fattening cannot be profitably done in the prairie provinces, was freely expressed, but it was just as readily refuted by those who spoke from experience. A delegate stated that he knew of a carload of cattle fed in the open air during the winter of 1906-7 on prairie hay and water, the gain averaging 100 pounds per head. Another speaker explained that 90 head averaging 1,250 pounds in the autumn, were made to weigh 1,400 pounds by spring fed in a ravine in Manitoba. The feed consisted of straw and chaff that would otherwise have been burned, with grain chop. Charging for the grain and the labour, the steers made a clear profit of sixteen dollars (\$16) per head. After summing up the various arguments presented, the chairman of the convention pointed out that it was simply the old story—some men could make it pay, while others, too careless or too lazy to do the thing properly, would fail in the fattening of cattle as they would in any other undertaking.

There are thousands of wheat growers who spend their winters in idleness after marketing the season's harvest. Continuous good crops, desirable as they are, have

very great disadvantages for the farming community. Already are to be found in these new provinces, districts yielding little more than half the returns per acre they did some years ago, and while the yield, following continuous cropping, is going down, the land is becoming foul with weeds, whereas, a system of mixed farming, including the feeding of the straw and other rough feed to cattle, together with a suitable system of rotation, involving spreading the manure on the land, builds up the soil, keeps it clear of weeds, and hastens the ripening of the grain, thus reducing the danger from early frost.

There are in certain sections of the west, farmers who finish their cattle during the summer and ship them to the British market. An example of this may be seen on a farm near Moosomin, where Mr. R. J. Phin, is devoting his attention to this work. He handles about nine hundred (900) head each year, sometimes shipping direct to the old country. These cattle are gathered largely around Moosomin, and in the Moose Mountain country, where there is abundance of water and grass. The chief points of interest regarding his operations are—(a) the finishing on rape of cattle not otherwise fit to ship; (b) winter feeding.

MR. PHIN'S METHODS.

(a) Finishing cattle on rape:

'The land intended for this purpose is treated as a summer fallow during the early summer, and about the first of July is sown to the forage crop mentioned, two pounds of seed per acre being used, sown in drills. After the sowing is done, manure is applied with spreaders; surface cultivation is followed about once a week, thus keeping the weeds under. The cattle are turned on about September 15, and kept there until the frost sets in; in addition some chopped grain is fed. The cattle come off the rape in prime condition and ship well. The grains fed consist of oats, barley or frozen wheat, depending upon the price at which these may be obtained. Not only are the steers thus turned off in good condition, but the land is cleaned and made to bear a profitable crop of wheat, the straw being strong and the heads well filled. The packing of the soil seems to have the effect of preventing a rank growth of straw and also hastens the maturing of the crop. In 1908 sixty-five (65) acres were under rape, but some years double this quantity has been sown; this course of husbandry has been followed now for five years with satisfactory results.

(b) Winter feeding outside.—During the winter months, from one to two hundred steers are fed on cut straw and chopped grain. The equipment is not expensive, consisting of cheap wooden troughs, up about two feet from the ground on the leeward side of the buildings. Adjacent to the buildings is a yard with cheap sheds, but the steers fed there do not seem to make any greater gains than those altogether in the open. As remarked by Mr. Phin, "A big well-fed steer seems to take little heed of the cold." The cattle fed are practically all Shorthorn grades, which are preferred, as, in addition to being good feeders, they have size and weight.

The following statement by Mr. W. F. Puffer, M.L.A., of Lacombe, Alta., who is, in every sense of the word, a practical man, will be found both interesting and instructive:—

INTENSIVE FATTENING.

(By W. F. Puffer, M.L.A., Lacombe.)

'In the district around Lacombe and Red Deer, and in fact in that part of the province generally spoken of as Central Alberta, the winter feeding of cattle is becoming more general.

There is still plenty of grass throughout this district but the farmer is already occupying considerable areas. The country is somewhat rolling with abundant water, and dotted with frequent groves of poplar and some spruce, affording excellent opportunity for winter feeding in the open without the expense of stabling.

The method of feeding which is now being generally followed and which, after an experience of twenty years of cattle feeding, the most of the time in Alberta, I have myself found to give the most satisfactory results, I will describe briefly.

First, let me say that I strongly favour feeding in the open, and that I am convinced that many of those who attempt feeding cattle do not feed grain with sufficient liberality to obtain the best results. This, I believe, is one reason why Canadian cattle are generally quoted on the Liverpool market one cent per pound lower than United States' cattle. In the United States feeding districts, cattle are put on a full feed of corn almost from the start, which is kept before them constantly for six or eight months. One hundred bushels of corn is reckoned as the requirement of an ordinary steer during the feeding period. This method gives rapid gains, producing better cattle, which make better prices, than where limited grain rations are fed. The disposition of a thoroughly fattened steer is changed; he becomes docile and contented, ships better and thus brings a better price at the end of his life's journey. We have just as good cattle here as in the United States. Chopped barley, wheat and oats are fully equal to corn as a fattening ration, but we must give the cattle all they will eat of it, and when we learn to do this, I contend that our cattle will not sell at a lower price on the British market than United States' cattle.

I have been pleased to note that some good work is being done by the superintendent of the Experimental Farm at Brandon in outdoor cattle feeding, and I have read with interest reports of other Manitoba farmers who are experimenting along similar lines. I cannot help but think, however, that all these experiments would be better if they would adopt the method I here attempt to describe. At the time the Experimental Farm cattle were sold at Brandon last spring for $4\frac{1}{2}$ cents, which I fancy was about their value, a good many cattle were being sold here for $4\frac{1}{2}$ cents, but our best feeders were getting $4\frac{1}{2}$ to 5 cents for cattle for export, and they had to contend with the long rail journey, extra freight and shrinkage and other expenses which would make cattle cost to the dealer in Montreal from 6 cents to $6\frac{1}{2}$ cents per pound.

THE METHOD.

Where there is no natural shelter, a corral with a tight board fence about 7 feet high, with a rough, straw covered shed for stormy weather is necessary, and even where there is good natural shelter, cattle will do better with a roughly improvised shed in which to lie down during stormy weather. The rest of the equipment consists of racks for holding hay or rough feed, which should always be kept filled, and the cattle allowed access to them at all times. The grain feeding bunks should be placed in the centre of the corral or in the open, where the cattle can get all round them. They should be about $2\frac{1}{2}$ feet high, 3 feet wide, with 8-inch sides to keep in the chop, and if made about 16 feet long will be found convenient. With cattle not dehorned, and until they are on full feed, about one of these bunks to every eight head is necessary; after they are on full feed a bunk would accommodate more cattle. Self-feeders may also be used and are very satisfactory.

It is perhaps needless to say that attention to the smallest details is absolutely essential to obtain the best results in the feeding of cattle, and this applies just as emphatically with cattle that are being fed in the open, as under the most artificial conditions. They must be provided with plenty of bedding, good clean straw a foot deep; all frozen lumps of manure should be regularly removed so that cattle may have 'solid comfort.' Remember that when cattle are lying down quietly and contentedly chewing their cud they are making the most money for the feeder.

As above stated, the feed racks should always be kept filled, and I always like to supply the best hay at the first of the season before the cattle have got on to the full grain feed.

I find, like Mr. Grayson of Newdale, that finely chopped grain is best, being more easily digested. Barley and oats ground together is what is usually fed; sometimes oats and wheat, but I have had better results from feeding barley alone. I like to put in three-year-old steers weighing about 1,200 pounds; I begin feed-

ing about December 1, 5 pounds of chop once a day, gradually increasing this till about the 15th of the month to 4 pounds twice a day, which is still further increased until by the end of the month 6 pounds twice a day is being fed. This is gradually increased for the next ten days or so, when a little chop will be left over in the bunks; they should then be filled up and never allowed to get empty. I find more grain is eaten the third month than the second. Steers, such as referred to above, will sometimes average two pounds per head per day when on full feed depending on the size of the steer and the quality of rough feed and also, to some extent, on the weather. Steers of good breeding will gain in weight in five months from December 1 to May 1, from 350 to 500 pounds. Such steers will continue growing after the date mentioned until sold, and I am sure no one ever yet experienced any difficulty in getting a good price for such cattle in the spring.

I suppose objection would be raised to the amount of grain fed, but I contend that half-way methods don't pay, and in my experience, the results obtained justify the extra quantity of grain. On limited rations, steers do not become contented; they remain on their feet too much of the time playing and fighting, thus wasting a certain amount of the feed consumed, whereas when put on full feed, even the wildest cattle soon become lazy and lie down a great deal of the time, when, as I have already said, they are making flesh economically.

Another important item is the water supply, and it is most essential that water should at all times be available. If water is supplied from a well, a tank heater is a necessity to keep the water in the troughs from freezing, and it will pay for itself in a short time if twenty head or over are being fed. If the water is supplied from a lake or a stream then ample water holes should be provided, and attention should be given that these are made convenient for drinking from, so that the animals can stand comfortably. This can be done by making a long opening in the ice, say not over twelve inches wide, and as long as necessary. A little ledge should be left all around the edges of the water hole to keep their feet from slipping in, and the ice should be chopped away at the back so that their hind feet are down almost on a level with their front feet. The ledge round the water hole will also prevent the water from becoming contaminated on warm days. Barrel salt I find best and it should not be allowed to get lumpy or hard.

Operations of a Large Firm.

Many other Alberta feeders are adopting intensive fattening methods. A representative of this Branch, travelling in Alberta, reports the operations of one firm that had in the winter of 1908-9, 1,400 head on feed at three points—Carbon, Midnapore and High River. At High River, where 485 head were feeding, the cattle had only a bush shelter on the banks of the river. In January when visited they were getting all the hay they could eat, and a meal ration of 16 pounds per day. The meal consisted of a mixture of two-thirds oats and one-third barley ground fine. This meal was fed in self-feeders of which there were thirty, these being filled every second day. The cattle when seen in extremely cold weather appeared comfortable and contented. They were eating comparatively little hay—about four tons per day, or 16 pounds per head, which is about equal to the weight of meal consumed. They had free access to salt and to High River water. While they had not been weighed they appeared to be putting on weight rapidly. Three men were able to look after this herd of 485 head, including the work of grinding the grain by means of an engine and chopper.

WINTERING CALVES.

There is perhaps no greater loss in the entire ranching industry than that arising from the usual methods of wintering calves. Not only are many promising calves lost from exposure and shortage of feed during severe periods, but practically all that have come through the winter have lost weight and become stunted for future growth. Those who have taken the trouble to weigh their calves in fall and again in spring

have been surprised to learn that fully 200 pounds of flesh per head have been sacrificed by allowing the youngsters to take their chance on the range along with the herd. Calves that weighed 600 pounds at the beginning of winter had actually shrunk to 400 pounds by spring, losing just one-third their weight, and this all flesh, as neither bone, hide nor horn had been reduced. Any stockman can readily imagine the time it requires for such animals to regain the lost ground. It is fair to estimate that fully a year is lost in the animal's growth and a year delayed in the time the ranchman must wait for the price of his crop of steers.

Is there a better way practicable? That is the question which concerns the cattleman. Housing is not an easy problem and help is expensive, but something must be done to prevent or reduce the enormous loss from fatalities, shrinkage and stunting, that goes on from year to year. A year's saving of time and feed would do a great deal towards a provision for caring properly for the calves, especially since it can be done without expensive housing, or even the feeding of grain.

Many up to date ranch owners are recognizing the importance of proper shelter and feeding and make special provision for the calves during the first winter. Rough sheds are constructed in which they are run loose and fed on hay and oat sheaves or other suitable feed. Others bring their calves through successfully without the sheds. Mr. W. E. Tees, of Tees, Alberta, the owner of a herd of good cows, winters his calf crop satisfactorily without buildings. Describing his experience and system, Mr. Tees writes as follows:—

'I will try to give you my plan and experience in wintering calves. I have never weighed before or after wintering but I am sure I can bring them through the worst winter in very satisfactory form. During the hard winter of 1906 I had to change my usual plan, as the snow was too deep for grazing, so I held them in a yard or corral. That winter I had some 40 head, and fed them on wild hay and green cut oat feed, and I certainly had a fine bunch of calves in the spring with no loss. I will try and explain my usual plan, describing what I am doing this winter:—

First, I have a good amount of pasture land under fence; in the fall I cut and bunch all the available hay on wild land and leave it in the bunch for calves to run to. Then there is usually some fall wheat or rye stubble land, as I do not fall plough, and I have plenty of straw stack for them to run to. About the last of October, I take the calves from cows to wean. I place them in a large pasture of twenty or more acres, under high pole fence, securely built, so that it is impossible for them to get to the cows, but still have a good range. There I give them the best of hay, with either a straw stack or some green feed. In 48 hours after separation I let them all to the cows again, but this is really to benefit the cows, as by letting them drain the cows at this time there is no danger to the cows' udders. This plan I have always followed. I do not try to drive the cows to another inclosure, as some do, but they are separated from the calves only by this pole fence, therefore they are near each other all the time. It is surprising how little they worry and fail. The weaning is accomplished without perceptible shrink or falling off in flesh. In about two weeks' time I can turn them into the stubble field where they have access to wild hay and where they will remain till grass comes in the spring. However, should the feed mentioned not hold out, I am careful to take them plenty of wild hay. I do not feed any grain and have no buildings for them, only the bush and straw stacks.'

RAILWAY TRANSPORTATION.

The best of beef may be raised and finished in our western provinces, but unless it can be marketed in good condition, and at reasonable cost, its production is not likely to be continued. The home demand will of course grow, as population increases and towns and cities multiply, but farming is certain to remain the chief industry and beef production will undoubtedly always exceed local requirements. Outside markets will therefore be necessary and the means of reaching them must be duly considered.

The transportation facilities furnished to western cattle shippers have, for long, been declared altogether inadequate. It is charged that the supply of stock cars is irregular, uncertain and inefficient, their construction faulty, their equipment defective, that engines are overloaded and the speed of trains thereby greatly lessened and that as a consequence of these conditions cattle in transit undergo much needless suffering and their owners serious financial loss. While there is doubtless good ground for these complaints much of the trouble unquestionably arises from the fact that until within the last year or two, export shipments have been confined to a period, little, if any, exceeding three months during which one railway company has had, in addition to meeting the demands of ordinary live stock traffic, to do its best to move from 50,000 to 80,000 head of cattle over an average distance of 2,000 miles. The cattle shipping season in each year also overlaps the great eastward grain movement during which every effort must be made to get the crop to the terminal elevators before the close of navigation. In spite of these extenuating circumstances, however, there is both need and room for improvement, and although the adoption of winter feeding which will change and extend the shipping period and the near advent of railway competition will doubtless greatly better existing conditions, the reasonable demands of the present day trade must be given reasonable consideration.

At the National Live Stock convention held here last year, the western cattlemen present declared that without prompt and radical reforms in transportation methods their export trade could not, under the altered conditions of beef production, be any longer profitably carried on. As a result of the statements made by these gentlemen, the convention passed unanimously a resolution that the matter should be referred to the Railway Commission for action and it is very gratifying to know that, on the request of the western stock growers, that Board is, with characteristic promptitude, now actively engaged in remedying as far as possible the faulty conditions which have caused so much dissatisfaction and given rise to so many complaints.

SHIPPING HINTS.

In shipping cattle practical experience is of immense value and if the shipper himself is lacking in this qualification, he should endeavour to secure the services of a reliable and trustworthy man, especially if he intends doing business on an extensive scale. By following this course he will save himself much time, worry and money. This is particularly true in the case of shipments to distant and above all to foreign markets. Unless one knows the ropes, he is certain to find himself often at a loss and so driven into the hands of commission men and others who, whatever they may do for their regular customers, seldom show much compassion or consideration for the chance wayfarer, who is trying to do business on his own account. Loading must be carefully watched—overcrowding in a single car of a train load may mean a heavy loss. Cars should be clean and well bedded or sanded to prevent slipping; they should be in good, sound condition, and each should be closely examined inside to ensure that there are no projections such as splinters, bolts or nails likely to injure the stock.

Where hay is fed in transit, its distribution should be carefully supervised and at any time when car doors have been opened they should be properly closed before the train moves.

At feeding points the shipper must insist on ample time and space being allowed for rest, and must see that the feed and water supplied are of good quality and that each animal has an opportunity to get its reasonable share of both.

Undue delays in furnishing cars or in the movement of trains as well as all cases of injury to stock through rough handling, violent shunting, or otherwise should be promptly reported to the proper railway officials, who are generally more interested than their subordinates in seeing that satisfactory treatment is afforded to shippers. By looking sharply after their own interests in matters of this kind shippers will avoid much annoyance as well as financial loss.

It is almost superfluous to say that cattle ship much better when dehorned. This should, however, be done some time beforehand, preferably when close feeding begins.

or better still when they are calves. The dehorning of range cattle which are to be winter fed is especially advisable as it tends to make them quieter and much more peaceable than when the horns are left untouched.

THE DRESSED MEAT TRADE.

Fully aware of the disadvantages attending the present methods of marketing, the more advanced thinkers among our western stock growers have, for a long time, been earnest advocates of the establishment of a dead meat trade. There is no doubt that if the enterprise were properly financed, started on a sound basis and conducted in an honest and business-like manner in the general interest of the producer, there would be far less actual wastage than at present. It is altogether likely that, had it been possible to secure the required capital, the trade would have been inaugurated years ago. For such an undertaking on a scale sufficiently extensive to furnish effective relief, however, a great deal of money is necessary and as our western ranchers are, like the eastern farmers, not much in favour of the co-operative principle, while several large interests have been rather opposed to any change in existing conditions, nothing definite has yet been done. A number of packing establishments in which both beef and pork are prepared for local and Pacific coast trade are now in operation in Alberta and Manitoba, but no serious attempt has ever been made to develop and build up an export industry in meats or meat food products. It is true that in recent years some members of the great American Meat Trust have established outposts in the Canadian west with results, so far at least, beneficial to the stockman, and it is possible that this action on their part may be only preparatory to larger operations, provided the field is found to be sufficiently promising. It is questionable, however, bearing in mind the methods usually followed by these gentlemen once their grip is assured, whether the establishment of a Canadian dead meat trade under their auspices is a consummation devoutly to be wished.

Such an enterprise to be productive of the greatest benefit to all concerned, should be under effective public control, and it is to be hoped that in the not too far distant future some practicable scheme will be evolved which while affording a better and more reliable and regular market for our western live stock will still leave the producer free from the trammels of any trust, whether foreign or domestic.

ADVANTAGES OF DEAD MEAT TRADE.

The advantages to be gained from the establishment of an export trade in dressed meat are, in the opinion of those who have most fully and carefully considered the subject, quite beyond question.

In the first place, as has already been shown there is a very serious loss from the unavoidable shrinkage which occurs in the carriage of live cattle by land and sea over the enormous distance which separates the original seller from the ultimate buyer. While this shrinkage will, no doubt, become proportionately smaller with the general adoption of improved methods of handling, finishing and transporting the stock, it can never be entirely eliminated and even when reduced to a minimum, it will, I think, be found to constitute the determining factor in establishing the superiority of the dead meat trade from the profit point of view, at least as far as concerns all cattle except those of the very best quality and finish.

As will be shown later there is good ground for the belief that animals of the class last mentioned will continue to be profitably disposed of on the hoof.

Secondly, the competition which would be afforded by a sanely established, honestly conducted, and properly controlled dead meat trade would have a marked steadying effect on the prices paid to producers. With such a trade in constant operation, we would not see so often the fluctuations in values which now occur, and which are often undoubtedly due to friendly arrangements between buyers, many of whom unfortunately appear unable to resist the temptation to feather their own nests unfairly by

unduly cutting prices when stock is plentiful and easy to obtain. Dealers in Canada as well as in the United States and other countries never seem to learn that tactics of this sort cannot be counteracted by the payment of high prices when stock is scarce and when, as a rule, but little remains in the hands of the producer. Scarcity of this kind is almost always attributable to the discouragement and disgust of the farmer or feeder, who, feeling that he has not received fair remuneration for his feed and labour, disposes of all his stock and ceases to be a producer. If buyers of live stock, which, to a greater degree than any other farm product, suffers from petty price manipulations, could only be made to grasp the fact that the time for small profit margins is when prices all round are low, they would soon begin to reap the benefits of self denial in the form of a steady supply, and a regular if perhaps not excessively profitable trade. So long as they continue as at present to shake the confidence of the producer by scheming for unjust profits when stock is plentiful, so long will they continue to suffer, as many of them are now doing, from a shortage of raw material, not only disastrous to themselves, but involving great national loss.

Another and by no means unimportant reason for the establishment of a dead meat trade is one which has been plainly set before us on two different occasions within recent years.

In 1902 and again during the winter just past foot and mouth disease made its appearance in the United States, with the result that large areas were in each instance at once debarred from participation in the export live stock trade. While this was serious enough for those portions of the United States concerned, it was, for geographical reasons, of trifling importance, when compared with the results which would inevitably have followed a similar outbreak in Canada.

The United States has a long Atlantic coast line, and many different seaports, situated far apart, and served by numerous widely separated lines of railway. They have also, in constant operation, a complete system of fully equipped modern abattoirs, refrigerator cars and ships, which enable them on the shortest notice, to convert their export live stock into dressed meat, which can be sent forward without let or hindrance.

We, in Canada are in an entirely different position; our Atlantic seaports are few in number, and the railways leading to them pass in convergence through a narrow neck of land, measuring only a few miles from north to south.

We were on both occasions, fortunately successful by efforts much more strenuous and exacting than is perhaps realized by the majority of Canadians, even those most interested, in preventing the introduction to the Dominion of this notoriously infectious and easily transmitted disease. Had these efforts failed our export live stock trade would have been stopped at once. The British authorities would undoubtedly, and from their point of view, very properly, have prohibited the importation from Canada of live cattle, as well as sheep and swine. As a matter of fact, it was only with the greatest difficulty that they were induced to refrain from scheduling Toronto and a large portion of western Ontario during the last outbreak in which the states of New York and Michigan were involved. This attitude on their part was due to the fact that in the advices from Philadelphia, the origin of the outbreak in Pennsylvania, which was the first to be recognized, was wrongly attributed to a shipment of cattle from Toronto. I was fortunately, at the time, in close personal communication with the British Board of Agriculture, and it was only by the strongest representations that the action above indicated was averted. The Board, however, insisted on a farm to farm inspection of the whole of the area to which any suspicion could possibly be attached, and it was therefore, at its direct instance, that this particular line of work was undertaken and carried out.

Canada is practically without abattoirs equipped for the slaughter of cattle except to a very limited extent for the home market; she has no system of refrigerator meat cars, and has, entering her ports, very few ships fitted for the carrying of chilled meats. In view of these facts, it is scarcely necessary to dwell on the risk which she is constantly carrying. At any time, in spite of the best efforts of her veterinary sanitary

service, the appearance within her borders of one or other of the diseases scheduled by the British Board of Agriculture, is within the range of possibility. As matters now stand, were such a thing to occur, especially during the short period in which our western cattle are shipped, or at the time when out winter fed steers are being marketed, the consequences to the producer would be disastrous, while the whole trade would receive a blow, from which it would require many years to recover. For this reason, if for no other, the establishment of a chilled meat trade on sound business lines and under proper control, may fairly be termed a matter of national importance.

LIVE CATTLE TRADE MUST BE CONTINUED.

It must not be forgotten, however, that there is a constant paying demand in Britain for home killed dressed beef. This demand is certain to continue and as it can never, under existing conditions, be fully met by the British feeder, it is likely to remain profitable to those countries which, owing to their freedom from disease, are permitted to land live cattle in Great Britain, and are at the same time so situated geographically as to be able to transport such cattle at a reasonable cost and with not too great a risk of loss.

In these two respects Canada occupies, and will probably continue to occupy, a most favourable position. Many countries which, under other circumstances, would be our keenest competitors, have been compelled, for one reason or another, to abandon their export trade in live stock for that in chilled or frozen meat. As they are year by year improving their facilities for the carrying on of this trade, the supply of dead meat in the British markets, is likely, in the near future, to exceed the demand. In the United States, the only country at present in a position to compete with Canada in the live cattle trade, the home consumption of meat is increasing so rapidly, that the surplus for export is likely soon to be a negligible quantity.

It would thus appear that while the establishment of a chilled meat trade is necessary and advisable, it would be a short-sighted policy to contemplate the complete abandonment of our present export business in live stock. It should therefore, in my opinion, be not only continued, but fostered and encouraged, by making the conditions surrounding it as nearly perfect as possible. This can best be done by the maintenance of strict government supervision, involving full control of the methods adopted in transportation and the establishment of some comprehensive system of inspection, which, in addition to the present examination for health, would include the rejection of any animal of inferior quality or condition.

It is, to my mind, somewhat doubtful, whether it would ever be possible, in the face of the keen competition of an honestly conducted dead meat trade, to profitably ship grass fed cattle on the hoof from western Canada to the British market. There is, however, no question that given better transportation facilities than at present exist, a profitable business could be done in grain fed western steers, as well as in the stall-finished cattle from Ontario and other eastern provinces.

In any event it is well to have two strings to one's bow and as each line of trade would steady and balance the other, it is to be hoped that, in the near future, we shall see both firmly established on a solid and paying basis.

I have the honour to be, sir,
Your obedient servant,

J. G. RUTHERFORD,

*Veterinary Director General,
and Live Stock Commissioner.*

The Honourable SYDNEY FISHER,
Minister of Agriculture.